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Division of Public Utilities

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ACTION REQUEST RESPONSE - CONFIDENTIAL

To: Utah Public Service Commission

From: Utah Division of Public Utilities
Chris Parker, Director
Artie Powell, Energy Section Manager
Brenda Salter, Technical Consultant

Date: June 1, 2015

Re: **RMP Advice No. 15-08, Proposed changes to Schedule 110 – New Homes Program**
Docket No. 15-035-T07

RECOMMENDATION

The Division of Public Utilities (Division) recommends that the Public Service Commission (Commission) approve Rocky Mountain Power's (Company) proposed changes to the Residential New Homes Program.

ISSUE

On May 15, 2015, the Company filed proposed changes to Utah Tariff Schedule 110 Residential New Homes Program with an effective date of July 1, 2015. On May 15, 2015, the Commission issued an Action Request for the Division to investigate the proposed changes to Schedule 110 and report its findings and recommendation to the Commission by June 1, 2015. Subsequently the Commission issued a Notice of Filing and Comment Period giving interested parties until June 1, 2015 to provide comments with reply comments due June 8, 2015. The Division provides these comments in response to the Commission's Action Request and consistent with the comment period date noted on the Notice of Filing and Comment Period.

DISCUSSION

The Company's proposed changes to the New Homes Program include adding new qualifying measures, removing or retiring measures from the tariff sheets that were available for a limited time that are no longer available, extending the incentive application deadline from 120 days to 180 days, and making administrative changes to the tariff. The Company's proposed changes are intended to increase participation and energy savings while maintaining or enhancing program cost-effectiveness.

The Company proposes moving the tariff Provisions of Service from the last page to the first page and modifying the language to remove redundant requirements that are covered by measure tables. Included in the Provisions of Service is the incentive application deadline. The proposed extension of the incentive application deadline from 120 days to 180 days better aligns with Questar Gas Company's (Questar) 180 day submission deadline. The proposed change to 180 days has previously been approved by the Commission in Rocky Mountain Power's Home Energy Savings Program. In addition, several minor changes have been proposed to the language of the tariff to clarify measure names and requirements.

The Company is proposing to add three new measures to the Program, the electrically commutated motor (ECM) for 95% efficient gas furnaces, air source heat pumps, and 60% of lighting fixtures that meet Energy Star qualified lighting requirements.

The Company has offered incentives for 95% efficient gas furnaces with ECM in the Home Energy Savings Program since 2012. This proposed change aligns the program with Questar's Home Builder Program that offers incentives for furnaces with ECM.

The Company is proposing to add air source heat pumps to the New Homes Program. Heat pumps installed in conjunction with a natural gas furnace is often called a dual fuel or hybrid heating system. In response to OCS DR 1.1 the Company provided the following explanation of how heat pumps work in conjunction with a natural gas furnace.

> An air-source heat pump can provide efficient heating and cooling for your home, especially if you live in a warm climate. When properly installed, an air-source

> heat pump can deliver one-and-a-half to three times more heat energy to a home than the electrical energy it consumes. This is possible because a heat pump moves heat rather than converting it from a fuel like combustion heating systems do. A heat pump's refrigeration system consists of a compressor and two coils made of copper tubing (one indoors and one outside), which are surrounded by aluminum fins to aid heat transfer. In heating mode, liquid refrigerant in the outside coils extracts heat from the air and evaporates into a gas. The indoor coils release heat from the refrigerant as it condenses back into a liquid. A reversing valve, near the compressor, can change the direction of the refrigerant flow for cooling as well as for defrosting the outdoor coils in winter. Most central heat pumps are split-systems -- that is, they have one coil indoors and one outdoors. Supply and return ducts connect to a central fan, which is located indoors.[1]

The Company's proposal includes two different types of installation scenarios. A lower incentive for homes where natural gas is available to the home and a higher incentive for those homes where natural gas is not available. For installations where natural gas is available to the home, only savings for cooling will be claimed. Where natural gas is not available to the home, savings for both heating and cooling will be claimed. The Company stated that the intention was not to incentivize the installation of heat pumps per say since heat pump installation costs are high, but where a heat pump is planned, incent the home builder to install a higher efficiency heat pump.

The Company's application appears to assume that if natural gas is not available to the home then the home is electrically heated. The Division was concerned that this assumption was not accurate and didn't take into account the use of propane, bottled gas or other types of fuel. The Company referred the Division to its Confidential 2013 Customer Survey which showed that approximately [redacted] of Utah homes self-reported that they were heated by natural gas furnaces. Of the remaining [redacted] without natural gas, approximately [redacted] reported that their home was electrically heated. The Company incorporated the Confidential 2013 Customer Survey data into its program design to estimate the program savings. The program design and estimated savings can be found in Confidential Exhibit C – PacifiCorp's Design Tool provided with the filing. At

[1] US Department of Energy, http://energy.gov/energysaver/articles/air-source-heat-pumps

the measure level, air source heat pumps are cost-effective for all benefit/cost ratios except for the RIM test where the customer does not have natural gas available.

The Company is proposing to add a lower tier to the Energy Star Lighting program. The Program currently offers incentives for new homes where 80% of the light fixtures contain CFLs, LEDs or pin-based florescent bulbs. The Company has received feedback from its builders that 80% is difficult to obtain since 30% of bulbs in a typical new home are in recessed can fixtures. Recessed CFLs are more expensive and take longer to come to full brightness, therefore making them less desirable for some builders to install. Also at issue are the vanity light fixtures installed in bathrooms that leave the bulb exposed. For visual reasons "Hollywood" bulbs are more desirable. The Company is proposing to provide a lower tier at 60% Energy Star Lighting. The Company is also proposing to streamline the measure by adding more flexibility to respond to changing participation rates by adding an "up to" incentive.

The Division has reviewed the filing along with the program's cost effectiveness analysis and concludes that the proposed program changes are cost-effective on the program level with a utility cost test (UCT) of 1.45 and participant cost test (PCT) of 1.23 for expected participation in 2015. The program changes were unable to bring the total resource cost test (TRC), the total resource cost test + adder (PTRC), and the rate impact test (RIM) above 1.0. However, the benefit cost ratios for the TRC, PTRC, and RIM show an expected increase with the proposed changes from the ratios reported in the 2014 Energy Efficiency and Peak Reduction Annual Report.[2] Commission guidelines state that all five economic tests are useful in understanding program effectiveness, however, the UCT is recommended as the threshold test in determining program prudence.

On March 23, 2015, a draft filing of the proposed changes to Schedule 110 was provided to the DSM Steering Committee. The Company provided answers to questions submitted by the DSM Steering Committee and held multiple meetings to discuss the proposed changes. The Division participated in the draft review.

[2] Docket No. 15-035-50, Utah Energy Efficiency and Peak Reduction Annual Report, May 1, 2015, page 31 of 43

CONCLUSION

The Division has reviewed the changes as proposed by the Company and recommends that the Commission approve the modifications to Electric Service Schedule 110.

CC Bill Comeau, Rocky Mountain Power
Bob Lively, Rocky Mountain Power
Michele Beck, Office of Consumer Services
Service List